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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for the
MISSOURI and ARKANSAS
DRAINAGE BASINS

March 1, 1940

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Issued by the
United States Department of Agriculture
Soil Conservation Service
Division of Irrigation
In Cooperation with
The Colorado Agricultural Experiment Station
Colorado State College
Fort Collins, Colorado

March 10, 1940

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SNOW SURVEYS AND IRRIGATION WATER FORECASTS FOR MISSOURI AND ARKANSAS RIVERS

March 1, 1940

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Division of Irrigation, Soil Conservation Service, of the U. S. Department of Agriculture, in cooperation with State departments, other Federal bureaus and local organizations. The snow measurements are made principally by field personnel of the following organizations: Forest Service, National Park Service, Bureau of Reclamation, U. S. Geological Survey, War Department and State Experiment Stations. This work is otherwise conducted cooperatively with the State Engineers of Wyoming and Colorado, and various municipalities, irrigation associations, power companies and others. Precipitation records are supplied by the U. S. Weather Bureau.

P R E C I P I T A T I O N D A T A

WATERSHED	STATE	Precipitation October 1 to February 29	Departure From Normal	Precipitation February	Departure from Normal
		Inches	Inches	Inches	Inches
Missouri	East. Mont.	2.01	-0.92	0.61	+0.15
Missouri	Cent. Mont.	3.49	-0.28	0.92	+0.31
Missouri	North Wyo.	4.15	-1.42	1.44	+0.48
North Platte	Wyoming	3.82	-0.57	1.02	+0.09
South Platte	Colorado	4.33	-0.69	1.25	+0.17
Arkansas	Colorado	3.14	-0.69	1.10	+0.35

Precipitation on the watershed of the Missouri and its tributaries in Montana, Wyoming and Colorado, and the Arkansas River in Colorado was above normal during February, but the accumulated precipitation since October 1 is still below normal throughout the area.

SUMMARY OF MARCH 1 SNOW SURVEYS AND COMPARISON OF DATA

WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth		Water Content		Number Courses Report- ing 1940	Snow Density		1940 Water Content in Percent of	
	Five Year Avg.*	1939	1940	Five Year Avg.*		1939	1940	Five Year Avg.*	1939
	In.	In.	In.	In.		Percent	Percent	Percent	Percent
MISSOURI RIVER									
Jefferson River	35.4	40.1	30.1	9.3	5	26	24	81	76
Madison River	54.1	58.7	37.0	16.3	8	30	30	63	58
Gallatin River	33.0	39.4	31.4	8.5	7	26	24	99	88
Missouri River**	27.5	33.6	23.6	6.8	9	25	24	82	69
Marais River	47.4	56.9	40.6	13.8	2	29	31	70	55
Yellowstone River	28.7	30.8	25.9	6.8	10	24	23	88	86
Shoshone River	49.7	55.6	49.4	13.6	1	27	29	90	76
Bighorn River	34.3	40.3	22.6	8.6	6	25	24	62	55
North Platte River	53.5	59.5	46.0	16.7	9	31	30	87	82
Sweetwater River	32.7	36.4	22.8	8.0	1	24	25	75	66
Laramie River	31.1	36.7	27.4	8.6	9	28	26	91	82
South Platte River***	15.8	26.8	14.5	3.6	3	23	22	105	63
Crow Creek	18.2	27.7	13.6	4.2	1	23	22	88	60
Poudre River	33.1	38.7	28.2	9.3	7	28	25	91	88
Big Thompson River	55.2	57.9	49.2	17.1	2	31	30	87	84
St. Vrain River	34.1	43.9	28.1	8.2	1	24	21	84	76
Boulder Creek	24.2	37.4	28.2	7.5	2	31	30	112	74
Clear Creek	39.8	50.5	33.8	10.1	1	25	26	82	64
ARKANSAS RIVER	33.1	38.9	26.9	8.5	8	26	26	74	63

*Some for shorter periods.

**Headwaters of Missouri River

***Above Denver, Colo.

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The snow cover on the watersheds of the Missouri River and its tributaries, the Jefferson, Madison, Gallatin and Marias Rivers in Montana, is considerably less than it was last year at this time. On March 1 the water content of the snow on 5 snow courses on the watershed of the Jefferson was 7.5 inches; on 8 courses on the Madison, 10.2 inches; on 7 courses on the Gallatin, 8.4 inches; on 2 courses on the Marias, 9.6 inches; and on 9 courses on the headwaters of the Missouri, 5.6 inches. On this date last year the water content of the snow on these courses was respectively 9.8, 17.5, 9.5, 17.6, and 8.1 inches.

On the watersheds of the Bighorn and the Yellowstone Rivers in northern Wyoming the snow cover is also less than last year. Six courses on the Bighorn and 10 on the Yellowstone show average water contents of 5.3 and 6.0 inches, March 1 this year. Last year on this date these courses showed water contents of 9.7 and 7.0 inches. The water content of the snow for 9 courses on the watershed of the North Platte was 14.6 inches on March 1 this year, and 17.8 inches a year ago. The March 1 record for 9 courses on the Laramie watershed shows a water content of 7.8 inches and 9.5 inches on March 1, 1939.

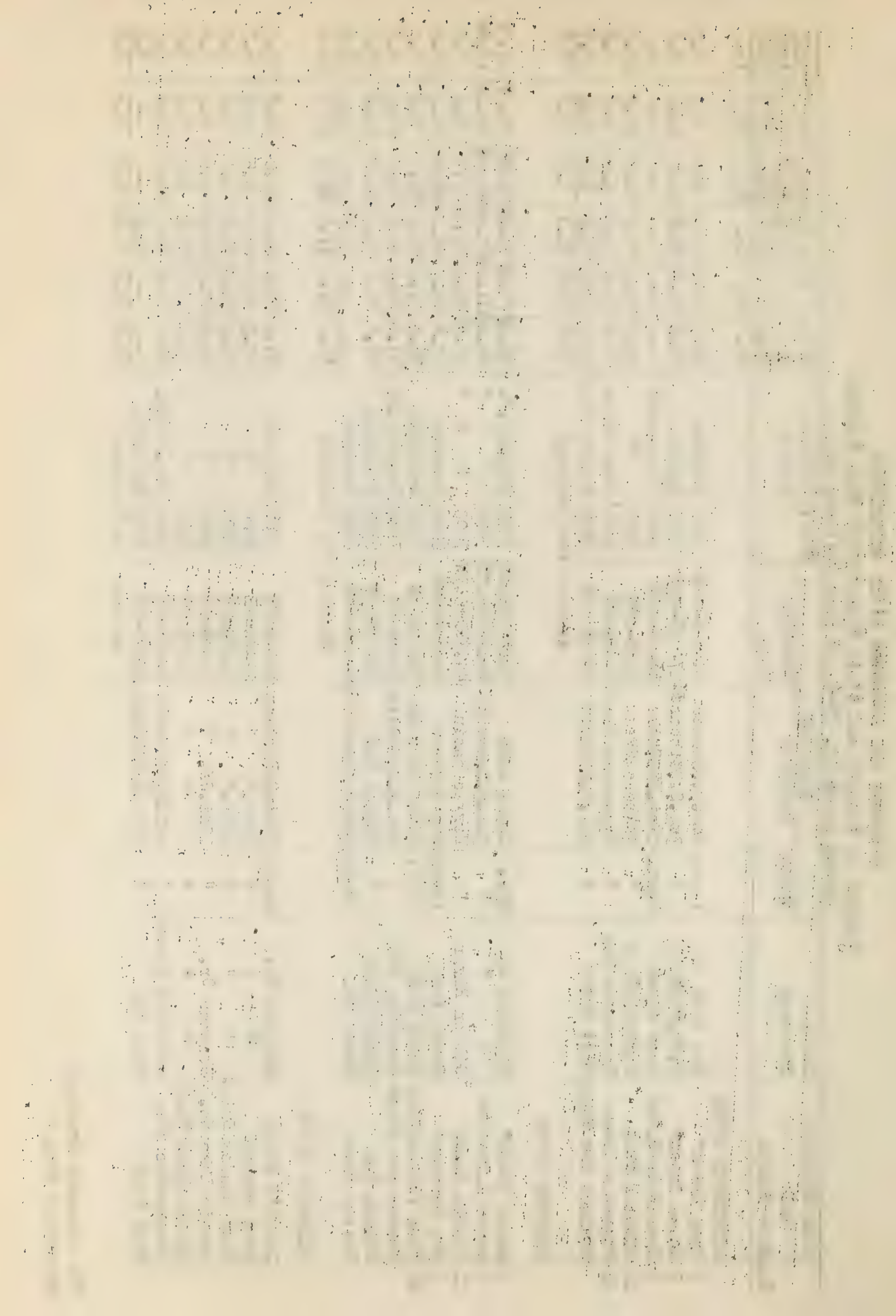
Although precipitation on the watersheds of the South Platte and Arkansas Rivers in Colorado was above normal during January and February, the snow cover is less than it was last year at this time. On March 1, 1940 there was 3.8 inches of water in the snow on the three courses on the headwaters of the South Platte. For this date last year there was 6.0 inches of water in the snow. For 7 courses on the Poudre River the water content of the snow was 8.5 inches on March 1 this year and 9.6 inches, March 1 last year. The same trend is shown by the courses on the Big Thompson River. For the St. Vrain River, Boulder Creek, and Clear Creek watersheds the water content of the snow on the courses was respectively 6.9, 8.4 and 8.3 inches this year and 9.1, 11.3 and 12.9 inches last year. The average water content for 8 courses on the watershed of the Arkansas River was 6.3 inches, March 1 this year and 10.0 inches a year ago. Summaries of the data are given in the accompanying tables.

The subsoil is deficient in moisture in Montana, Wyoming and Colorado. In areas where the snow has melted there is sufficient moisture in the surface soil. Stream flow is much below normal throughout most of the three states. However, because of early melting of snow, the flow of the Yellowstone is considerably greater than it was last year at this time. The unusually low stream flow has resulted in a serious shortage in reservoir storage on the North Platte in Wyoming and the South Platte and Arkansas in Colorado. Dry subsoil and below normal snow cover in the mountains indicate that the summer runoff from the watersheds of the streams in these states will be less than last year unless unusually heavy snowfall occurs during March and April.

MISSOURI AND ARKANSAS RIVER WATERSHEDS
Summary of Federal and State Cooperative Snow Surveys
Issued March 10, 1940, at Fort Collins, Colo.

Main Drainage and No. Snow Course		Local Drainage	State	Location		Elev.	National Forest	Mar. 1 Snow Course Measurements					
				Locality	Descrip- tion			Avg. 1929	Depth 1940	Avg. 1939	Content 1940		
In.								In.	In.	In.	In.		
JEFFERSON RIVER													
6	Camp Creek*	Red Rock Cr.	Idaho	6mi. N. Spencer	21-13N-36E	6800	Targhee	32.2	32.1	8.4	6.0		
7	Moose Creek*	N.Fk. BigHole	"	3mi. S. Gibbons P.	27-27N-21E	6200	Salmon	41.6	45.4	11.2	9.1		
7	East Fork R.S.*	Rock Creek	Mont.	13mi. NE. Sula	16-2N-17W	5400	Bitterroot	--	--	--	--		
10	Gibbons Pass	N.Fk. BigHole	"	Gibbons Pass	4-2S-19W	7100	"	58.5	65.6	16.9	14.4		
30	Pipestone Pass	Pipestone Cr.	"	Pipestone Pass	11-1N-7W	7200	Deer Lodge	16.8	23.0	3.3	2.5		
	Elkhorn Hot Spgs.	Wiss River	"	8mi. N. Polaris	15-4S-12W	8450	Beaver Head	27.2	34.2	6.8	5.7		
				Average for Drainage				35.4	40.1	9.3	7.5		
MADISON RIVER													
2	Aster Creek*	Firehole R.	Wyo.	Lewis Lake	44-3N-110-6W	7700	Yel. Nat. P.	66.8	74.5	22.2	11.7		
8	Lewis L. Divide*	"	"	3mi. S. Lewis L.	44-2N-110-7W	7900	"	94.8	111.2	30.1	16.4		
11	Norris Basin	Gibbon River	"	Norris Basin	44-3N-110-7W	7500	"	30.9	35.0	7.9	6.2		
3	Big Springs*	South Fork	Idaho	Big Springs	34-14N-44E	6500	Targhee	57.4	59.7	16.9	11.9		
16	West Yellowstone	South Fork	Mont.	W. Yellowstone	34-13S-5E	6700	Gallatin	36.9	37.2	10.3	7.3		
	Twenty-one Mile*	Greyling Cr.	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	47.6	49.0	13.7	9.7		
	Hebgen Dam	Cabin Creek	"	Hebgen Dam	22-11S-3E	6550	Gallatin	44.4	44.5	13.2	10.7		
	Valley View	Denny Cr.	Idaho	5mi. E. Henry's L.	7-15N-44E	6500	Targhee	--	--	--	7.8		
				Average for Drainage				54.1	58.7	16.3	10.2		
GALLATIN RIVER													
	Devil's Slide	Hyalite Cr.	Mont.	20mi. S. Bozeman	14-5S-6E	8100	Gallatin	51.1	59.1	14.0	13.3		
	Flood Meadow	"	"	14mi. "	22-4S-6E	6600	"	27.0	36.4	6.5	6.7		
	Flood Meadow Extn.	"	"	14mi. "	22-4S-6E	6600	"	26.5	32.0	6.1	6.0		
	Mystic Lake No. 1	Bozeman Cr.	"	12mi. SE. "	31-3S-7E	6600	"	23.4	30.3	5.6	7.4		
	Mystic Lake No. 2	"	"	"	31-3S-7E	6600	"	22.7	29.5	5.2	6.3		
	Twenty-One Mile	Gallatin River	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	47.6	49.0	13.7	9.7		
	Ross Peak	Ross Cr.	"	12mi. N. Bozeman	10-1N-6E	7000	Gallatin	--	--	--	9.1		
				Average for Drainage				33.0	39.4	8.5	8.4		

*On adjacent Drainage
#Readings Feb. 15



MISSOURI AND ARKANSAS RIVER WATERSHEDS

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Main Drainage and Snow Course		Local Drainage	State	Location Locality	Description	Elev.	National Forest	Mar. 1 Snow Course Measurements				
No.	Snow Course							Av. Snow Depth	1939	1940	Av. Water Content	
								In.	In.	In.	In.	
MISSOURI RIVER												
6	Chessman Res.	Tennile	Mont.	11mi. SW. Helena	2-8N-5W	6200	Helena	16.9	21.2	13.7	4.3	
11	Goat Mountain	South Fork	"	26mi. W. Gilman	47-5N12-9W	7000	Lewis & Clark	30.7	37.8	22.9	7.5	
36	Stemple Pass	Canyon Creek	"	Stemple Pass	16-13N-7W	6900	Helena	33.9	37.0	28.2	3.2	
41	Tennile Cr. Lower	Tennile	"	17mi. SW. Helena	13-8N-6W	6250	"	22.7	31.3	19.6	5.1	
42	Tennile Cr. Middle	"	"	"	13-8N-6W	6800	"	32.5	44.0	28.6	7.6	
43	Tennile Cr. Upper	"	"	"	19-8N-5W	8000	"	37.0	50.9	33.3	9.5	
	Grasshopper	Grasshopper Cr.	"	6mi. S.W. S. Spgs.	19-9N-8E	7000	Lewis & Clark	16.4	16.7	16.0	3.4	
	King's Hill	Belt Creek	"	21mi. N.W. S. Spgs.	35-13N-7E	7950	"	41.0	45.0	34.7	10.3	
	Orville Harris	Mussellshell R.	"	12mi. E.W. S. Spgs.	31-10N-9E	6500	"	16.2	17.5	15.0	5.1	
Average for Drainage								27.5	33.6	23.6	6.8	
MARIAS RIVER												
7	Desert Mountain*	Cutbank Cr.	Mont.	4mi. S. Belton Summit	24-31N-19W	5500	Flathead	44.2	48.0	41.0	12.2	
20	Marias Pass	Two Medicine	"	"	48-3N13-4W	5250	Glacier NP.	50.6	65.8	40.1	15.5	
Average for Drainage								47.4	56.9	40.6	13.8	
YELLOWSTONE RIVER												
40	Lupine Creek	Lupine Creek	Wyo.	11mi. SE. Gardiner	44-9N110-6W	7300	Yel. Nat. P.	28.5	28.7	26.9	6.7	
41	Blacktail Deer Cr.	Blacktail Deer	"	11mi. " "	44-9N110-6W	7500	"	32.4	34.0	29.2	7.9	
42	Beaver Dams	"	"	"	44-9N110-6W	7200	"	23.2	22.8	21.9	5.4	
	Camp Senia	W. Br. Rock Cr.	Mont.	10mi. W. Red Ldg.	2-8S-18E	7870	Custer	16.6	22.2	12.0	3.3	
3	Canyon	Tower Creek	Wyo.	3mi. N. Canyon Jct.	44-7N110-5W	7750	Yel. Nat. P.	37.9	43.0	34.0	9.1	
	Cooke City	Soda Bottle Cr.	Mont.	Cooke City	25-9S-14E	7400	Absaroka	27.0	29.2	25.0	6.5	
	Crevice Mtn. #1	Yellowstone	"	6mi. E. Gardiner	26-9S-9E	8400	Yel. Nat. P.	34.2	37.4	31.0	8.1	
	Crevice Mtn. #2	"	"	7mi. " "	25-9S-9E	8200	"	33.1	37.2	29.0	8.4	
7	Lake Camp	"	Wyo.	3mi. NE. Fishing Br.	44-6N110-4W	7850	"	36.1	36.0	32.0	8.2	
	Porcupine	Porcupine Cr.	Mont.	12mi. NE. Wilsall	10-4N-10E	6500	Absaroka	17.8	17.5	18.0	4.2	
Average for Drainage								28.7	30.8	25.9	5.8	

*Adjacent Drainage

RECEIPTS

DATE		DESCRIPTION		AMOUNT		BALANCE	
1900	Jan 1	Balance		100.00		100.00	
1900	Jan 15	John Doe	100.00	100.00		200.00	
1900	Feb 1	John Doe	50.00	50.00		250.00	
1900	Feb 15	John Doe	25.00	25.00		275.00	
1900	Mar 1	John Doe	12.50	12.50		287.50	
1900	Mar 15	John Doe	6.25	6.25		293.75	
1900	Apr 1	John Doe	3.12	3.12		296.87	
1900	Apr 15	John Doe	1.56	1.56		298.43	
1900	May 1	John Doe	0.78	0.78		299.21	
1900	May 15	John Doe	0.39	0.39		299.60	
1900	Jun 1	John Doe	0.19	0.19		299.79	
1900	Jun 15	John Doe	0.09	0.09		299.88	
1900	Jul 1	John Doe	0.04	0.04		299.92	
1900	Jul 15	John Doe	0.02	0.02		299.94	
1900	Aug 1	John Doe	0.01	0.01		299.95	
1900	Aug 15	John Doe	0.00	0.00		299.95	
1900	Sep 1	John Doe	0.00	0.00		299.95	
1900	Sep 15	John Doe	0.00	0.00		299.95	
1900	Oct 1	John Doe	0.00	0.00		299.95	
1900	Oct 15	John Doe	0.00	0.00		299.95	
1900	Nov 1	John Doe	0.00	0.00		299.95	
1900	Nov 15	John Doe	0.00	0.00		299.95	
1900	Dec 1	John Doe	0.00	0.00		299.95	
1900	Dec 15	John Doe	0.00	0.00		299.95	
1900	Jan 1	John Doe	0.00	0.00		299.95	

1900

1900

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No.	Snow Course		State	Locality	Descrip- tion			Av. Snow Depth		Av. Water Content		
								1939	1940	1939	1940	
							In.	In.	In.	In.	In.	
SHOSHONE RIVER												
50	Brooks Lake #3*	Shoshone R.	Wyo.	Brooks Lake	23-44N-110W	9200	Washakie	49.7	55.6	49.4	13.6	
BIGHORN RIVER												
14	Dome Lake	Goose Cr.	Wyo.	Dome Lake	11-53N-87W	8800	Big Horn	--	--	16.9	--	
45	Sawmill Glade	Popo Agie R.	"	13mi. SW. Lander	3-31N-101W	8500	Washakie	--	--	9.7	--	
46	Blue Ridge	"	"	15mi. " "	23-31N-101W	9500	"	--	--	17.9	--	
47	South Pass	L. Popo Agie R.	"	19mi. " "	13-30N-101W	9000	"	--	--	25.4	--	
49	Sheridan Cr. RS#2	Sheridan Cr.	"	16mi. NW. Dubois	3-42N-109W	7500	"	18.9	25.0	16.6	3.5	
50	Brooks Lake #3	Wind River	"	Brooks Lake	23-44N-110W	9200	"	49.7	55.6	49.4	13.6	
								34.3	40.3	22.6	8.6	
NO. PLATTE RIVER												
1	Cameron Pass	Michigan Cr.	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	49.8	59.7	44.1	16.3	
7	Park View	Illinois Cr.	"	7mi. SE. Rand	24-5N-78W	9200	Routt	32.5	37.1	23.2	8.4	
8	Columbine Lodge	Grizzly Cr.	"	Rbt. Ears Pass	21-5N-82W	9300	"	65.0	68.4	51.5	19.7	
7	Bottle Creek	Encampment Cr.	Wyo.	7mi. SW. Encampment	24-14N-85W	8200	Medicine Bow	41.6	48.3	32.2	11.7	
8	Webber Spring	"	"	10mi. W. "	27-14N-85W	9000	"	48.3	58.1	41.5	14.0	
9	Old Battle	"	"	12mi. W. "	29-14N-85W	9800	"	79.6	84.7	66.2	25.9	
37	North French Cr.	N. French Cr.	"	Cent/Saratoga	27-16N-80W	10200	"	75.6	77.7	72.4	27.3	
38	N. Barrett Cr. #2	Barrett Cr.	"	"	30-16 N-80W	9400	"	54.8	60.6	53.7	17.0	
39	Ryan Park #2	"	"	"	34-16N-81W	8400	"	34.2	41.3	29.2	10.2	
								53.5	59.5	46.0	16.7	
SWEETWATER RIVER												
29	Grannier Meadows	Rock Creek	Wyo.	20mi. SW. Lander	19-30N-100W	9000	Washakie	32.7	36.4	22.8	8.0	
								9.1	9.1	8.0	6.0	

*Adjacent Drainage

*Readings on Original Course.

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Main Drainage and Snow Course		Local Drainage		Location		Elev.	National Forest	Mar. 1 Snow Course Measurements			
No.		State	Locality	Description	Av. Snow Depth			Av. Water Content	1939	1940	1939
								In.	In.	In.	In.
LARAMIE RIVER											
3	Brooklyn Lake	Wyo.	7mi. NW. Centennial	11-16N-79W	10200	Medicine Bow	49.8	51.0	16.6	17.6	11.7
11	Fox Park	"	Tox Park	21-13N-78W	9200	"	27.8	31.6	7.4	7.6	7.8
34	Pole Mountain #2*	"	10mi. SE. Laramie	35-15N-72W	8700	"	18.2	27.7	4.2*	6.2	3.7
35	Libby Creek	"	3mi. NW. Centennial	29-16N-78W	8700	"	25.3	32.4	6.6	8.7	5.5
36	Hairpin Turn #2	"	5mi. NW. Centennial	24-16N-79W	9500	"	26.9	30.7	7.4	8.1	5.4
4	W. Port. G. P. Tunnel	Colo.	4mi. N. Chambers L	7-8N-75W	8600	Roosevelt	27.1	32.5	7.3	8.1	7.1
50	Deadman Hill*	"	10mi. W. R. Feather	26-10N-75W	10200	"	39.8	46.3	10.3	10.6	9.0
71	Deadman Hill #2*	"	8mi. SW. "	6-9N-74W	10200	"	34.2	41.1	8.7	9.4	7.0
88	Roach	"	8mi. NW. Glendevy	5-10N-77W	9800	"	--	--	--	--	12.8
				Average for Drainage			31.1	36.7	8.6	9.5	7.8
SOUTH PLATTE RIVER											
14	Hoosier Pass	Colo.	Hossier Pass	13-8S-78W	11400	Pike	32.2	47.1	7.4	11.3	5.7
15	Fairplay	"	Fairplay	33-9S-77W	10000	"	2.1	6.4	0.2	0.6	0.0
83	Jefferson Cr. #2	"	5mi. NW. Jefferson	14-7S-76W	10100	"	13.0*	--	3.2*	--	5.6
				Average for Drainage			15.8	26.8	3.6	6.0	3.8
CROW CREEK											
34	Pole Mountain #2	Wyo.	10mi. SE. Laramie	35-15N-72W	8700	Medicine Bow	18.2*	27.7	4.2*	6.2	3.7
POUDRE RIVER											
1	Cameron Pass	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	49.8	59.7	14.1	17.2	15.4
2	Chambers Lake	"	Chambers Lake	6-7N-75W	9000	"	19.2	25.9	5.0	5.0	5.6
3	Big South	"	2mi. E. Chambers L	33-8N-75W	8600	"	8.3	9.4	1.8	1.0	2.7
50	Deadman Hill	"	10mi. W. R. Feather	26-10N-75W	10200	"	39.8	46.3	10.3	10.6	9.0
65	Lake Irene*	"	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N. P.	56.2	58.0	17.9	18.2	14.8
68	Hour Glass Lake	"	2mi. NW. Pingree P	18-7N-73W	9500	Roosevelt	24.3	30.8	5.4	6.1	5.0
71	Deadman Hill #2	"	8mi. SW. R. Feather	6-9N-74W	10200	"	34.2	41.1	8.7	9.4	7.0
				Average for Drainage			33.1	38.7	9.3	9.6	8.5
BIG THOMPSON											
65	Lake Irene*	Colo.	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N. P.	56.2	58.0	17.9	18.2	14.8
67	Fall River	"	12mi. W. Estes P.	6-5N-74W	10600	"	54.1	57.8	16.3	16.9	14.8
				Average for Drainage			55.2	57.9	17.1	17.6	14.8

*Adjacent Drainage *Readings on original course

*Adjacent Drainage

*Readings on original course

MISSOURI AND ARKANSAS RIVER WATERSHEDS
Summary of Federal and State Cooperative Snow Surveys
Issued March 10, 1940, at Fort Collins, Colo.

Main Drainage and No. Snow Course	Local Drainage	State	Location		Elev.	National Forest	Mar. 1 Snow Course Measurements					
			Locality	Description			Avg.	In.	1939	1940	Avg.	In.
41	ST. VRAIN RIVER											
	Wild Basin	Colo.	5 mi. W. Allen's P.	24-3N-74W	10000	Ry. Mtn. N.P.	34.1	43.9	28.1	8.2	9.1	6.9
	BOULDER CREEK											
5	E. Port. Moffat T.	Colo.	East Portal	2-2S-74W	9400	Roosevelt	10.3	15.5	11.9	2.6	3.5	2.8
60	University Camp #2	"	5 mi. SW. Ward	28-1N-73W	10300	"	38.0	59.4	44.5	12.4	19.1	14.0
	CLEAR CREEK			Average for Drainage			24.2	37.4	28.2	7.5	11.3	8.4
61	Loveland Pass #2	Colo.	10 mi. W. Georgetown	27-4S-76W	10100	Arapaho	39.8	50.5	33.8	10.1	12.9	8.3
	ARKANSAS RIVER											
19	Tennessee Pass	Colo.	Tennessee Pass	21-8S-80W	10200	Cochetopa	33.7	40.4	23.5	8.2	10.6	5.6
21	Twin Lakes Tun.	"	9 mi. W. Twin Lakes	22-11S-82W	10500	"	32.0	38.2	24.4	9.2	9.6	7.6
42	Marshall Creek*	"	Marshall Pass	24-48N-6E	10800	"	43.0	47.8	36.0	10.7	12.3	5.5
43	Poncha Creek	"	"	19-48N-7E	10500	"	30.1	35.0	27.0	7.9	9.6	4.3
72	Whiskey Creek #2	"	Whiskey Cr. Pass	37.2N105.2W	10300	Maxwell Grant	27.4	33.8	21.1	7.6	8.3	6.8
74	LaVeta Pass #2*	"	LaVeta Pass	22-28S-70W	9300	San. Cristo	34.4	43.8	34.0	7.9	10.3	7.7
78	Four Mile Park #2	"	3 mi. SW. Twin L.	23-11S-81W	9700	Cochetopa	14.0	15.5	12.4	3.5	3.9	3.1
79	Fremont Pass #2	"	Fremont Pass	2-8S-79W	11400	Arapaho	50.5	56.8	36.6	12.9	15.7	9.8
				Average for Drainage			33.1	38.9	26.9	8.5	10.0	6.3

*Adjacent Drainage

*Readings on original course.

color and also for its use in dental practice.